

REMARKS

Claims 1, 3 and 7 have been amended. Claim 2 has been canceled, without prejudice. Claims 8-10 have been added. Claims 1 and 3-10 are presently pending.

The specification has been amended to correct a typographical error uncovered in preparation of this response.

In view of such amendments and the following remarks, reconsideration and allowance of the claims, as presently presented, are respectfully requested.

EXAMINER'S ACTION**The 35 U.S.C. § 112 Rejections**

The Examiner rejected claims 1-7 under 35 U.S.C. § 112, second paragraph, as being indefinite because "external store" and "aircraft" are not positively recited and claimed. The Examiner's rejections are respectfully traversed. The claimed invention is directed to an improved hanger assembly whose construction allows the assembly to be coupled to an external store, such as a missile, and to an aircraft, such that the assembly provides that the external store is suspended from the aircraft while the aircraft is in flight. See specification, for example, at paragraphs [0003] – [0004].

Without admitting the propriety of the Examiner's Section 112 rejections, claim 1 has been amended to incorporate the features of claim 2, which depended from claim 1 and has been canceled, and to clarify what is the claimed invention. Claim 1, as amended, particularly points out the interrelationship between component features of the claimed hanger assembly and each of an aircraft and external store to which the hanger assembly is for coupling. In addition, claim 7 has been amended to particularly point out the construction of the center panel, which defines an aperture in the band of the hanger assembly, and states that the aperture is not located at a region of the

hanger assembly where a maximum bending moment is caused by loading on the hanger assembly when the hanger assembly is coupled to an aircraft and also coupled to an external store.

Thus, claim 1, as amended to clarify what is the claimed invention and to incorporate the features of canceled dependent claim 2, is a proper claim in that it positively recites and claims elements included in the inventive hanger assembly, namely, a band having a center and two side panels, an interface for engagement with an attachment mechanism of an aircraft and a fastening means. The "aircraft" to which the hanger assembly is for coupling, and the "external store" which the band of the hanger assembly secures to provide that the hanger assembly suspends the external store from the aircraft, do not constitute inventive subject matter. Thus, amended claim 1 particularly points and distinctly claims the invention, and it is not necessary that claim 1 positively recites an "external store" and, in addition, it is not necessary that claim 7, which depends from claim 1, positively recites an "external store" and "aircraft".

Accordingly, the Examiner is respectfully requested to withdraw the rejections under Section 112.

The 35 U.S.C. § 102 and § 103 Rejections

Claims 1 and 7 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent Nos. 4,714,229 ("Force *et al.*") or 3,357,432 ("Sparks"). Further, claims 2 and 4-6 were rejected under 35 U.S.C. § 103 as being unpatentable as obvious based on Force *et al.* Claims 1 and 7 as amended, claims 3-6 which depend directly upon claim 1 (claim 2 having been canceled), and new claim 8 which depends from claim 1, clearly are patentable over Force *et al.* or Sparks.

Claim 1, as amended, is directed to a hanger assembly and requires, in relevant part, a band including a center panel and two side panels, where the band has a predetermined longitudinal length, thickness and material strength. The claimed hanger assembly further includes a fastening means that can be adjusted to apply a predetermined radial loading to an external store so that the band secures the external store. Claim 1 further requires that when an interface of the hanger assembly is engaged with an attachment mechanism of an aircraft and the first and second side panels of the band are coupled to each other by the fastening means to cause the band to encircle and contact the external store so that the external store is secured within the band, "a maximum bending moment caused by loading on the hanger assembly with the external store secured thereto is located at a region of the band other than at the interface." Advantageously, the inventive hanger assembly avoids loading a hanger assembly at the interface which provides for coupling to an aircraft, thereby avoiding deflection and stress at the interface that can result in damage to or failure of the hanger assembly. See specification, for example, at paragraphs [0005], [0009] and [0029].

Although Force *et al.* discloses a pipe support having two side sectors that can be articulated about respective ends of a center sector, Force *et al.* does not teach or suggest the combination of a support band with a center and two side panels and having a longitudinal length, thickness and material strength features, and an adjustable fastening means with the band, in a hanger assembly to provide that a maximum bending moment, which is caused by loading on the hanger assembly when the support is coupled to an external store, is not located at the interface on the band used to establish a mechanical engagement with an aircraft, as required by amended claim 1.

Sparks, which concerns a clamp or ring for coupling to a vessel in a human body, is non-analogous art and, therefore, not a proper reference. Moreover, nowhere does Sparks teach or suggest a hanger assembly within which an external store can be secured, and having an interface for engagement with an aircraft, to provide that the hanger assembly can be used to suspend the external store from the aircraft and where "a maximum bending moment caused by loading on the hanger assembly with the external store secured thereto is located at a region of the band other than at the interface", as required by claim 1.

Accordingly, claim 1 is patentable over each of Force *et al.* and Sparks.

Further, claims 3-8, which depend directly from claim 1, are also patentable over each of Force *et al.* and Sparks for the same reasons as set forth above with respect to claim 1 and because of the further restrictions they add.

Claims 3-6 recite further features of the band of claim 1. As to amended claim 7, neither Force *et al.* or Sparks teaches or suggests a hanger assembly, as required by claim 1, further including an aperture that extends through the thickness of the center panel of the band and is for receiving hardware for electrically interconnecting an external store with an aircraft and where "the maximum bending moment caused by loading on the hanger assembly with the external store secured thereto is located at a region of the band other than at the aperture".

Claim 8 states that the arcuate side panels of the band of claim 1 have a conformed profile (see specification at paragraph [0024]), which is nowhere taught or suggested in Force *et al.* or Sparks.

Withdrawal of the Section 102 and 103 rejections is, therefore, respectfully requested.

Allowable Subject Matter

The Examiner stated that claim 3 would be allowable if it were rewritten to overcome the Section 112 rejection concerning the positive claiming of "external store" and "aircraft" and to include all of the limitations of the base claim and any intervening claim.

Without admitting the propriety of the Examiner's Section 112 rejection, new Independent claim 9 and new dependent claim 10, which depends from claim 9, have been added to claim additional features of the invention and include allowable subject matter set forth in originally filed claims 2 and 3. Claim 9 incorporates the features of claim 1, positively recites and claims the aircraft and external store, and states that the maximum bending moment is located at a region other than at the interface on the hanger assembly that engages with the aircraft. Claim 10 states that the center panel of the band of the hanger assembly of claim 9 defines an aperture, that the aperture is for receiving therethrough a hardware interface for electrically interconnecting the external store with the aircraft and that the aperture is not located at a region of the band at which a maximum bending moment is caused by loading on the hanger assembly when the hanger assembly is coupled to an aircraft and also coupled to an external store.

Allowance of new claims 9-10 is respectfully requested.

CONCLUSION

For the foregoing reasons, it is believed that all of the claims, as presently presented, are patentable.

The Examiner is invited to telephone the undersigned if it is believed that further amendment and/or discussion would help to advance the prosecution of the present application.

Reconsideration and allowance of claims 1 and 3-10 are, therefore, respectfully requested.

Respectfully submitted,



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Attorney Docket No: 20776-168US